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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,581	06/15/2007	Lindsay K. Newcombe	105MC-036	8703
32192	7590	11/12/2008		
BRADLEY N. RUBEN 503 MITCHELL COURT CHAMPAIGN, IL 61821-3535			EXAMINER BOOTH, MICHAEL JOHN	
			ART UNIT 4158	PAPER NUMBER
			MAIL DATE 11/12/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/590,581	<b>Applicant(s)</b> NEWCOMBE ET AL.	
	<b>Examiner</b> MICHAEL J. BOOTH	<b>Art Unit</b> 4158	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 5-6 are objected to because of the following informalities: It is unclear to the examiner what claim 5 is dependent on because claim 6 depends on claim 5 which claims to be dependent on claim 4. However, claim 5 as written depends on claim 3. The examiner will interpret it as being dependent on claim 3, as it looks like a typo and claim 3 is a claim often depended on in the other claims as well. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-9 and 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen (US Publication 2005/0027371; hereinafter Chen).

Claim 1:

Chen discloses an apparatus for attaching a prosthetic limb to the bone of a patient to failsafe if excess force is applied to the limb, comprising a proximal and distal component to mount to the limb and a coupling body coupling together these components with freedom to articulate when excess force is applied. (Fig. 2).

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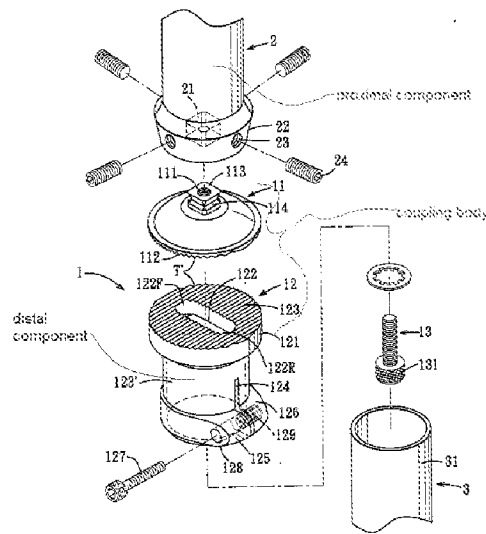


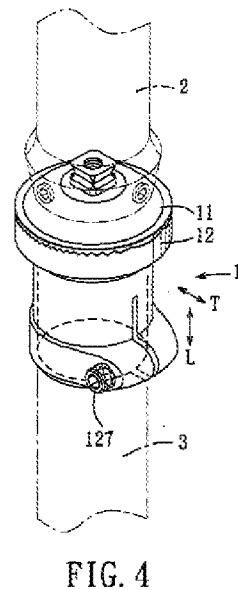
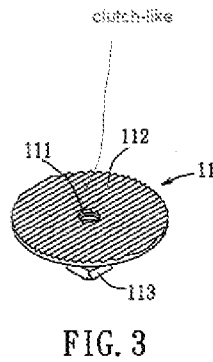
FIG. 2

## Claim 2:

Chen discloses an apparatus incorporated into the bone implant component on a prosthetic limb. (Fig. 2). The prosthetic limb connecting to the distal component shown in figure 2.

## Claims 3 &amp; 5:

Chen discloses a clutch-like (112 & 123) mechanism to rotationally couple the limb to the bone implant, able to decouple upon a threshold of torque, (Fig. 3 & 4), where the clutch-like mechanism will be disengaged if a torque exceeds a threshold level. An adjustment means by screw (127).



Claim 6:

Chen discloses a screw (127) capable of being adjusted towards or away from the clutch-like mechanism. (Fig. 4 above). The screw is adjusted and moves in a direction axially towards or away from the mechanism.

Claim 7:

Chen discloses a clutch-like mechanism having opposing sets of co-operating clutch teeth (112 & 123) where the teeth are symmetrical and the clutch-like mechanism may disengage with rotational direction of torque applied to the limb. (Fig. 2).

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Claim 8:

Chen discloses an apparatus configured to be located external to the patient's skin and cause no tearing of the skin when the clutch-like mechanism disengages. Since the proximal component is connected to the bone, it is inherent the apparatus is configured to be located external to the patient's skin. From figures disclosed by Chen, there is no reason to believe tearing of the skin would have occurred.

Claim 9:

Chen discloses a coupling body with a disengageable connector (13 & 111) that couples together the proximal and distal components so there is one fixed angle but also has freedom to articulate away from the fixed angle when a bending force exceeds the threshold level. (Fig. 6).

Claim 20:

Chen discloses in figure 6, a pin that if an excess force is applied to it, it will decouple.

Claim 21:

Chen discloses an apparatus that may be demounted by the user, through removal of the horizontal lock pin (45). [0004].

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Claims 22 & 23:

Chen discloses an apparatus with a disengageable connector. Chen further discloses an apparatus with a clutch-like mechanism. (figures 2 & 6).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4 and 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen as applied to claims 1 and 3 above, and further in view of Capper et al (US Patent 6,605,118; hereinafter Capper).

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Claims 4 & 10:

Chen discloses an apparatus applied to the connector or clutch determines the threshold level of bending force on the limb that will cause disengagement of the connector or clutch. From figure 4 above, a force above the threshold level between 11 and 12 would have caused disengagement of the connector or clutch. However, Chen fails to disclose explicitly having a biasing means or member. The patent by Capper discloses in the abstract discloses a biasing force of a spring to disengage the gear from the lock pin (abstract). Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chen with a biasing force to provide a failsafe thereby setting a threshold and further disengaging if necessary. There is motivation to combine the two references as they are in the same field of endeavor.

Claim 11:

Chen discloses a pin (13) mounted on one component and co-operating with a socket (111) on the other component. (Fig. 6).

Claim 12:

Chen discloses a pin (13 & 24) mounted to allow it to move axially back and forth.



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Claim 13:

Chen discloses a pin with a domed tip (13) where the pin can ride up the socket (111) wall depending on the force applied. (Compare figures 5 - 7).

Claim 14:

Chen discloses the domed tip to facilitate disengagement of the connector. From figure 6, the tip has freedom to move against the nut attached to.

Claim 15:

Chen discloses a disengageable connector configured to allow gyrating, when it is rotating in direction allowed by the thread.

Claim 16:

Chen discloses a pin (13) that is t-shaped, with curved/arcuate at the head of the pin, depending on the size of the pin and curved/arcuate angle at the head, to facilitate tilting of one component.

Claim 17:

Chen discloses the t-shape pin (13) tilting within the coupling body.

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Claim 18:

Chen discloses a slot (111) that allows for the pin (13) to extend at a greater or lesser extent as the component tilts, restricting the tilting degree of freedom. The pin will limit the tilting.

Claim 19:

Chen discloses the head of a pin (127) orthogonal to that of the head of the other pin (13).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL J. BOOTH whose telephone number is (571)270-7027. The examiner can normally be reached on Monday thru Thursday, 8:00am - 4:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jackson can be reached on (571)272-4697. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

10/07/2008

/M. J. B./

Examiner, Art Unit 4158

/Gary Jackson/

Supervisory Patent Examiner

Art Unit 4158

11/4/2008